

Georgia-Pacific LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Area 2 Supplemental Remedial Investigation Report

Table 5-2 -- Summary of Data Collected by State of Michigan, USEPA, and USGS in Area 2

Sampling Event	Event Year	Approximate Sample Dates	Data Source	Media	Analyses (Total Number of Samples)	Data Usability Category ¹	Comments
Biota Sampling							
MDNR Sampling Investigations	1971	-	MDNR	Fish	-	5	Sources cite MDNR sampling and analysis of various species in 1971, 1981, 1983, 1985, and 1987, including for PCBs, from Area 2. Pre-1993 Kalamazoo River fish samples collected by the State from other locations along the Kalamazoo River are available in the MDEQ's site database; however, it appears that data from sampling within Area 2 are not presently included in the MDEQ's database. These data will be compiled from available sources to extent practical for inclusion in the Area 2 SRI Report.
	1981	-	MDNR	Fish	-	5	
	1983	-	NUS	Fish	-	5	
	1985	-	MDNR	Fish	-	5	
	1987	-	MDNR	Fish	-	5	
MDCH 1993 Sampling Investigation	1993	Oct 1993	MDEQ	Fish	Lipids (2), PCB Aroclors (2), Pesticides (2), Polybrominated biphenyls (2), Polychlorinated Styrenes (2), Polychlorinated terphenyls (2)	3	The historical biota investigation PCB and lipid data are discussed in Section 2.3 (MDEQ LTM Program), Section 6.2 (Temporal analysis of PCB in sediment, water and fish) , Section X (Human Health Risk Assessment Summary) , Section X (Baseline Ecological Risk Assessment Summary) , and Appendix F (MDEQ LTM Fish and Surface Water Data), and presented in associated tables and figures in the Area 2 SRI Report.
LTM Fish Sampling	1999	Oct 1999	MDEQ	Fish	Lipids (27), PCB Aroclors (27), PCB Congeners (5), Solids (5)	3	
	2001	Sep 2001	MDEQ	Fish	Lipids (24), PCB Aroclors (22), PCB Congeners (2), Solids (24)	3	
	2006	Sep 2006	MDEQ	Fish	Lipids (11), PCB Aroclors (11)	3	
	2009	Sep 2009	MDEQ	Fish	Lipids (33), PCB Aroclors (28), PCB Congeners (5)	3	
LTM Caged Fish/SPMD Sampling	1999	Sep 1999	MDEQ	SPMD	Lipids (8), PCB Congeners (8), Solids (8)	3	Analytical results from species historically collected within Area 2 are available at: http://www.deq.state.mi.us/fcmp/
	2001	Aug 2001	MDEQ	SPMD	Lipids (4), PCB Congeners (4), Solids (4)	3	
	2009	Jul 2009	MDEQ	SPMD	Lipids (4), PCB Congeners (4)	3	
Soil Sampling							
2001 USEPA Phase I Sampling ²	2001	May 2001 - Jun 2001	USEPA	Floodplain Soil	Dioxin (3), PCB Aroclors (141), TOC (73)	3	Phase I and II soil investigation is discussed in Section 2.2 (2001 USEPA Soil and Sediment Sampling) and Section 5 (Soils) ; and presented in associated tables and figures in the Area 2 SRI Report.
2001 USEPA Phase II Sampling	2001	Aug 2001	USEPA	Floodplain Soil	PCB Aroclors (245)	3	
Sediment Sampling							
2001 USEPA Phase I Sampling	2001	Jun 2001	USEPA	Sediment	Dioxin (10), PCB Aroclors (149), TOC (78)	3	Phase I and II sediment investigation is discussed in Section 2.2 (2001 USEPA Soil and Sediment Sampling) and Section 5 (Sediments) ; and presented in associated tables and figures in the Area 2 SRI Report.
2001 USEPA Phase II Sampling	2001	Jul 2001 - Aug 2001	USEPA	Sediment	PCB Aroclors (429)	3	
Surface Water Sampling							
LTM Caged Fish/SPMD Sampling	1999	Aug 1999 - Sep 1999	MDEQ	Surface Water	PCB Congeners (4)	3	The data are discussed in Section 2.4 (MDEQ LTM Program). However, these data are not presented in the Area 2 SRI Report. Data was not collected to support RI investigation. We do not propose to include these data in the Area 2 SRI Report.
	2001	Jul 2001 - Aug 2001	MDEQ	Surface Water	PCB Congeners (5), TSS (5)	3	
LTM Dry Weather Surface Water Sampling (Downstream of Plainwell Dam)	1999	Sep 1999 - Oct 1999	MDEQ	Surface Water	PCB Congeners (8)	3	PCB and TSS results are discussed in Section 2.4 (MDEQ LTM Program), Section 5 (Surface Water) , Section 6.2 (Temporal analysis of PCB in sediment, water and fish) , and Appendix F (MDEQ LTM Fish and Surface Water Data) .
	2000	Jul 2000 - Oct 2000	MDEQ	Surface Water	PCB Congeners (7), TSS (7)	3	
	2001	Apr 2001 - Jul 2001	MDEQ	Surface Water	PCB Congeners (7), TSS (7)	3	
LTM Dry Weather Surface Water Sampling (Farmer Street Bridge)	1999	Sep 1999 - Oct 1999	MDEQ	Surface Water	PCB Congeners (8)	3	
	2000	Jul 2000 - Oct 2000	MDEQ	Surface Water	PCB Congeners (6), TSS (6)	3	
	2001	Apr 2001 - Jul 2001	MDEQ	Surface Water	PCB Congeners (6), TSS (6)	3	
LTM Wet Weather Surface Water Sampling (Farmer Street Bridge)	2000	Apr 2000	MDEQ	Surface Water	PCB Congeners (6), TSS (6)	3	
	2001	Apr 2001 - Aug 2001	MDEQ	Surface Water	PCB Congeners (10), TSS (10)	3	

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Surface Water Sampling (Cont.)							
LTM Inlet/Outlet Surface Water Sampling (Farmer Street Bridge)	2003	May 2003 - Nov 2003	MDEQ	Surface Water	PCB Congeners (11), TSS (11)	3	PCB and TSS results are discussed in Section 2.4 (MDEQ LTM Program), Section 5 (Surface Water) , Section 6.2 (Temporal analysis of PCB in sediment, water and fish) , and Appendix F (MDEQ LTM Fish and Surface Water Data) .
	2004	Feb 2004 - Nov 2004	MDEQ	Surface Water	PCB Congeners (16), TSS (16)	3	
	2005	Mar 2005 - Sep 2005	MDEQ	Surface Water	PCB Congeners (12), TSS (12)	3	
	2006	Jan 2006 - Dec 2006	MDEQ	Surface Water	PCB Congeners (16), TSS (16)	3	
	2007	Mar 2007 - Nov 2007	MDEQ	Surface Water	PCB Congeners (12), TSS (12)	3	
	2008	Feb 2008 - Oct 2008	MDEQ	Surface Water	PCB Congeners (16), TSS (16)	3	
	2009	Feb 2009 - Nov 2009	MDEQ	Surface Water	PCB Congeners (14), TSS (14)	3	
	2010	Feb 2010 - Nov 2010	MDEQ	Surface Water	PCB Congeners (16), TSS (16)	3	
	2011	Feb 2011 - Dec 2011	MDEQ	Surface Water	PCB Congeners (12), TSS (12)	3	
SPMD							
LTM Caged Fish/SPMD Sampling	1999	Sep 1999	MDEQ	SPMD	PCB Congeners (9)	3	The data are discussed in Section 2.4 (MDEQ LTM Program). SPMD results not presented in the Area 2 SRI Report. We do not propose to include these data in the Area 2 SRI Report.
	2009	Jul 2009	MDEQ	SPMD	PCB Congeners (3)	3	
Survey							
USEPA FIELDS Bathymetric Survey ³	2011	2011	USEPA	Sediment	No sample collection	3	USEPA bathymetric survey within Area 2 is discussed in Section 2.2 (2011 USEPA Bathymetric Survey) and Section 4.
2001/2001 USGS Transect Survey ³	2001/2002	May 2001 - May 2002	USGS	Sediment	Particle size (164)	3	USGS sediment transect survey within Area 2 is discussed in Section 2.2 (USGS Sediment and Geomorphological Investigations) and Section 4.

Notes:

- Data categories established by USEPA (Saric 2009b):
Category 3 – Data collected by state and federal agencies. Data that were not collected and validated using Site-specific standard operating procedures are flagged in the database as follows: “Data may not have been collected or validated using site-specific SOPs.”
Category 5 – Data collected before 1993. These data should only be used for qualitative purposes.
- Sample count does not include SL055 as it is assumed that this sample was removed during cleanup action at the 12th Street Landfill.
- USEPA data categories do not explicitly address physical data collected by government agencies, but the most applicable category is Category 3.
- Sample count includes duplicate samples.

FIELDS = Field Environmental Decision Support Team

LTM = long-term monitoring

NA = not applicable

PCB = polychlorinated biphenyl

MDCH = Michigan Department of Community Health

MDEQ = Michigan Department of Environmental Quality

SOP = Standard Operating Procedure

SPMD = semipermeable membrane device

TOC = total organic carbon

TSS = total suspended solids

USEPA = United States Environmental Protection Agency

USGS = United States Geological Survey